

*Response Amendment**USSN 08/660,461*

F1
(e) an audio/video switch in association with the AV path and configured to control the carrying of AV signals representing individual participant and mosaic video images between the mosaic generator, the locations and the workstations.

REMARKS

In the Examiner's Action dated April 1, 1997, the claims were rejected under 35 U.S.C. § 103(a). Applicants respond by commenting as follows:

The Examiner rejected claims 3-9, 11-13, 16, 22-24, 26-27 and 30-33 "under 35 U.S.C. 103(a) as being unpatentable over Tompkins et al., US Patent 5,014,267 (**Tompkins**) in view of Kannes, US Patent 4,965,819 (**Kannes**) and Watabe et al, "Distributed Desktop Conferencing System with Multiuser Multimedia Interface", IEEE Journal on Selected Areas in Communications, Vol. 9, No. 4, May 1991, pages 531-539 (**MERMAID**)."

In rejecting claims 9, 24, 30 and 33 (claims 30 and 33 being independent), the Examiner stated as follows:

Tompkins teaches a system for teleconferencing (See title and abstract) between a first location and a second location (See Figure 10 and Col. 22, lines 4160), the system comprising: a plurality of workstations at the first location (Fig. 10, #223 "Mates") and at least one workstation (Fig. 10, #230) at the second location, each workstations being associated with a participant and having a monitor and participant audio and video capture and reproduction capabilities (See Figure 1 and Fig. 2, #10, "Mate", and Col. 5, lines 34-50 and Col. 7, lines 59-65), an AV path (Fig. 3 and Col. 9 line 64- Col. 10, line 16), a first (audio) mosaic generator at

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the first location for combining signals of at least two first location participants (Figure 10, #221, Figures 4a and 4b, Col. 11, lines 25-55 and Col. 12, lines 40-65), for receiving a second location participant image from second location and combining at least a portion of the first combined signal with received signal from the second location, and for reproducing the combined signal at first location (See Fig. 7, Col. 19, line 58 - Col. 20, line 23), and an equivalent mosaic generator at the second location (Fig. 10, #228); and an audio summer configured to combine only the second and third participant for reproduction at the first participant (Col. 19, lines 57-68).

Tompkins, while teaching the "mosaicing" of audio signals, does not teach combining of video signals into a mosaic images, but teaches a system in which single video image of a single participant is selectively displayed (Col. 19, lines 34-57).

Kannes teaches a teleconferencing system comprising: a station associated with each participant, and having a monitor and AV capture and reproduction capabilities (Figs 1, 3, and Col. 4, lines 28-41), an AV path for carrying AV signal between the participants (Fig. 2, #30, 40 and 51, and Col. 4, lines 18-28), a video mosaic generator to combine a portion of the mosaic signal with a captured image of a third participant (Fig. 5, #118, #119 and #120, and Col. 9, line 47 - Col. 10, line 55).

MERMAID further teaches no-overlapping, multi-window display of a plurality of participants in a teleconferencing system based on digitized NTSC format signal which can be used in Tompkins system (Page 534, Paragraph B, and Figure 8).

Applicants respectfully disagree with the Examiner's assertion that these claims are obvious in light of these three cited references.

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It is well established that, for the Examiner "[t]o establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art."¹

Both independent claims 30 and 33 recite claim limitations to a two part video mosaicing process/apparatus. In this process/apparatus mosaicing operations are conducted at both locations to create images specifically for display at that location. This concept has significant advantages with respect to conserving bandwidth and resources and is neither contemplated nor suggested by the cited references.

Tomkins, by the Examiner's own admission, teaches displaying only a single participant's video image on a computer screen. Thus, Tomkins does not teach video mosaicing at all, let alone the two-part video mosaicing claimed in these independent claims. Although Tomkins may teach audio summing, there is a significant distinction between audio summing and video mosaicing. The two are totally independent technologies requiring significantly different signal formats, hardware, controls and other implementations. They are non-analogous technologies and audio summing does not suggest or even imply video mosaicing. If it did, surely Tomkins (*a system without any mosaicing*) would have implemented it.

Kannes, on the other hand, teaches video mosaicing, but it does not teach the two part mosaicing claimed. In fact, the entire Kannes reference is specifically limited to a "composite of video

¹ M.P.E.P. § 2143.03 (Rev. 2, July 1996) (citing, *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (CCPA 1974)).

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signals" generated at a *single location*. See, for example, Col. 5 lines 66 to Col. 6 line 31 and Col. 7 line 67 to Col. 8 line 35. This composite is then sent to the other location. The system is specifically set up to do mosaicing at only one location. Video mosaicing is never done at both locations. Thus, Kannes does not provide the required teaching nor suggestion of the two part mosaicing claimed.

The same comment applies to the MERMAID reference. There is no teaching of the two part mosaicing.

Because this two part mosaicing limitation is not taught or suggested by any reference by itself or in combination, Applicants respectfully believe that the Examiner cannot establish a *prima facie* case of obviousness that would be sufficient to maintain a rejection of independent claims 30 and 33 under § 103(a).

Thus, the Examiner has not provided references that expressly or impliedly teach or suggest the claimed invention. The M.P.E.P. directs that "[t]o support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references."²

² M.P.E.P. § 2142 (Rev. 2, July 1996) (citing *Ex parte Clapp*, 227 U.S.P.Q. 972, 973 (Bd. Pat.App. & Inter. 1985)).

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Thus, Applicants respectfully believe that the § 103(a) rejections based on these references cannot be sustained.

Remarks Relating to Dependent Claim

The M.P.E.P. provides that "[i]f an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious."³ Accordingly, because Applicants believe that Claims 30 and 33 are nonobvious, it is believed that so too are dependent Claims 3-9, 11-13, 16 and 19 (dependent on Claim 30) and Claims 22-24, 26, 27, and 29 (dependent on Claim 33). Consequently, Applicants respectfully believe that none of the other rejections presented by the Examiner can be maintained and, therefore, request that all such rejections be withdrawn.

Remarks Relating to Independent Claims 31 and 32

As to the Examiner's rejection of the remaining two independent claims 31 and 32, Applicants repeat, at least in part, their comments with respect to claims 30 and 33. Both claims 31 and 32 require two mosaic generators, respectively at first and second locations. Thus the references, even if they could be combined, do not teach all the claim elements, and, for the reasons set out, cannot support an obviousness rejection.

Accordingly, applicants submit that all the claims are allowable.


³ M.P.E.P. § 2143.03 (Rev. 2, July 1996) (citing, *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988)).

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Applicants request allowance of these claims at the Examiner's earliest convenience. Should the Examiner believe a conference will expedite the allowance of this application, please contact the undersigned.

Respectfully submitted,


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